WHAT IS CLAIMED IS:

1. A method of manufacturing an electron-emitting device, comprising:

(A) arranging on a substrate a member comprising a first electroconductive layer blanketing the substrate, a layer containing at least one of materials composing an electron-emitting element blanketing the first electroconductive layer, a protective layer blanketing the layer containing at least one of materials forming an electron-emitting element, a second electroconductive layer blanketing the protective layer, an insulating layer blanketing the second electroconductive layer, and a third electroconductive layer blanketing the insulating layer;

(B) forming an opening, which extends from a surface of the third electroconductive layer to the protective layer, by dry etching; and

(C) wet-etching the protective layer through the opening to expose a portion of the layer containing at least one of the materials forming the electron-emitting element.

2. A method of manufacturing an electron-emitting device according to claim 1, wherein the protective layer is made of a material having a lower etching rate than the second electroconductive layer.

3. A method of manufacturing an electron-emitting device according to claim 1, wherein the protective layer is made of a metal.

4. A method of manufacturing an electron-emitting device according to claim 1, wherein the protective layer is made of one of a silicon nitride and a silicon oxide.

5. A method of manufacturing an electron-emitting device according to claim 1, wherein the first electroconductive layer composes a cathode electrode, the second electroconductive layer composes a focusing electrode, and the third electroconductive layer composes a gate electrode.

6. A method of manufacturing an electron-emitting device according to claim 1, wherein the electron-emitting element contains mainly carbon.

7. A method of manufacturing an electron-emitting device according to claim 1, wherein the electron-emitting element is one of diamond, diamond-like carbon, and a carbon fiber.

8. A method of manufacturing an electron source including a plurality of electron-emitting devices,

the method comprising:

manufacturing the electron-emitting devices by the manufacturing method according to claim 1.

9. A method of manufacturing an image display device including an electron source and a light emitting member that emits light by electron irradiation, the method comprising:

manufacturing the electron source by the manufacturing method according to claim 8.